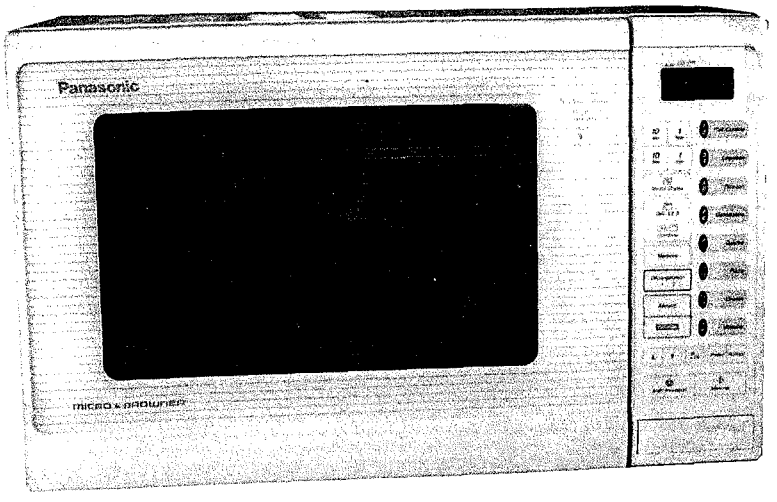
ORDER NO. MOP9307026C2

Service Manual

Microwave Oven

NN-H503B
NN-H553B



Specifications

Power Source:	220/230 V AC Single Phase, 50 Hz
Power Requirement:	Microwave: 1,430W Maximum: 2,730W
High Frequency Output:	900W (IEC-705) Heater: 1,300W
Microwave Frequency:	2,450 MHz
Timer:	99 min. 99 sec.
Outside Dimensions:	530 mm (W) × 403 mm (D) × 344 mm (H)
Oven Cavity Dimensions:	350 mm (W) × 365 mm (D) × 250 mm (H)
Weight:	18.5 kg
Specifications subject to change without notice.	

Panasonic

WARNING

* This product should be serviced only by trained, qualified personnel.
This service manual covers products for following markets.
When troubleshooting or replacing parts, please refer to the country identifications shown below for your applicable product specification.
EPG · · · · · · · · · · · · For Europe

CONTENTS

(Page)

FEATURE CHART 3
CONTROL PANEL 4
OPERATION PROCEDURE 5
SCHEMATIC DIAGRAM 8
DESCRIPTION OF OPERATING SEQUENCE 9
CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING 10
DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE 11
COMPONENT TEST PROCEDURE 14
MEASUREMENTS AND ADJUSTMENTS 16
TROUBLESHOOTING GUIDE 17
EXPLODED VIEW AND PARTS LIST 21
DIGITAL PROGRAMMER CIRCUIT PARTS LIST 25

ORDER NO. MOP9311043S2

5836

Service Manual

Supplement

Microwave Oven

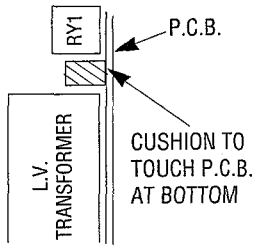
NN-6803B NN-6853B
NN-6403B NN-6453B
NN-H503B NN-H553B

BPQ: FOR UNITED KINGDOM. LPG: FOR IRELAND.

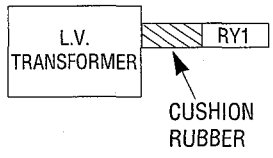
PLEASE USE THIS SUPPLEMENT SERVICE MANUAL TOGETHER WITH THE FOLLOWING SERVICE MANUALS:
NN-6803B, NN-6853B, NN-6403B, NN-6453B, BPQ/LPG. ORDER NO. MOP9306021C2
NN-H503B, NN-H553B, BPQ. ORDER NO. MOP9306022C2

Reason for Change
1. Improve performance
2. Change of material or dimension
3. To meet approved specification
4. Standardization
5. Addition
6. Deletion
7. Correction
8. Other

SIDE VIEW



PLAN VIEW



Interchangeability Code

	Parts	Set Production	
A	Original →	Early	*Original or new parts may be used in early or late production sets.* Use original parts until exhausted, then stock new parts.
	New →	Late	
B	Original →	Early	Original parts may be used in early production sets only. New parts may be used in early or late production sets. *Use original parts where possible, then* stock new parts.
	New →	Late	
C	Original →	Early	New parts only may be used in early or late production sets. Stock new parts.
	New →	Late	
D	Original →	Early	Original parts may be used in early production sets only. New parts may be *used in late production sets only. Stock both original and new parts.*
	New →	Late	
E	Other		

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Interchange-ability Code	Reason of Changes	Remarks
—	————	ANE10496P0GS	CUSHION RUBBER	E	5	————

Made in U.K.

M.D. M.W.L

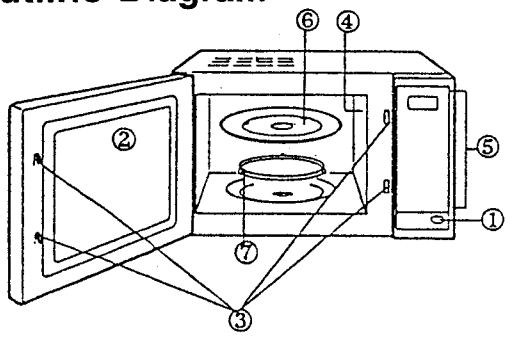
Panasonic

FEATURE CHART

FEATURE	
Two/Three Stage Cooking	○
Auto Defrost	○
Calorie Calculator	○
Delay Start	○
Timer	○
Digital Clock	○
Auto Cook	○
Grill	○
Combination	○

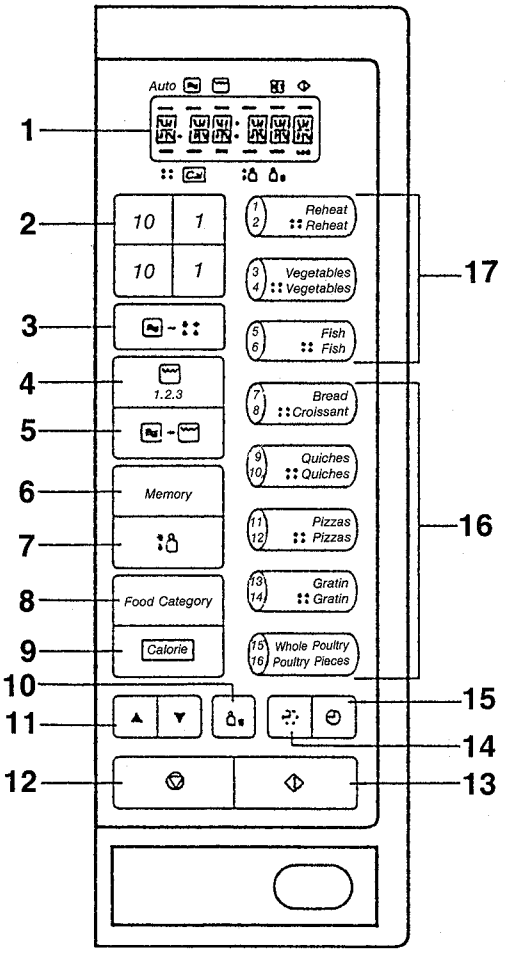
CONTROL PANEL

Outline Diagram



① Door Release Button
② Oven Window
③ Start Door Safety Lock System
④ Oven Air Vent
⑤ Control Panel
⑥ Glass Tray
⑦ Roller Ring

Control Panel



1. DISPLAY WINDOW
2. TIME PADS
3. MICROWAVE POWER PADS
4. GRILL PAD
5. COMBINATION PAD
6. MEMORY PAD
7. AUTO DEFROST PAD
8. FOOD CATEGORY PAD
9. CALORIE PAD
10. WEIGHT SELECTION PAD
11. ADJUSTMENT PAD
12. STOP/CANCEL PAD
13. START PAD
14. DELAY STAND PAD
15. CLOCK PAD
16. AUTO REHEAT (COMBINATION)
17. AUTO REHEAT (MICROWAVE)

OPERATION AND DIGITAL PROGRAMMER CIRCUIT TEST PROCEDURE

Kg/lb Conversion:
When using the Auto defrost and Auto Weight Cook features, the oven automatically displays the kg symbol. If you wish to use the lb/oz to enter your weight in Imperial, press START pad directly after plugging the oven in but before setting the clock.

1. To Set Clock

OPERATION	DISPLAY
1. Plug the power supply cord into wall outlet.	88:88
2. Press [Clock] pad.	
3. Enter time of day (TOD) by pressing appropriate [Time] pads.	11:25
4. Press [Clock] pad. TOD has now been registered into the digital programmer circuit and will count up by minutes.	11:25

2. Time Cooking for Two Stage

OPERATION	DISPLAY
1. Place a water load in the oven.	
2. Press [Micro Power] pad once to set High power. (1st stage)	900W
3. Set for 5 seconds by pressing [Time] pad.	5 SEC
4. Press [Power Level] pad 3 times to set Medium power. (2nd stage)	600W
5. Set for 10 seconds by pressing [Time] pad.	10 SEC
6. Press [Start] Pad.	5 SEC
7. When 1st stage cooking time has elapsed, oven beeps twice and automatically switches to 2nd stage cooking.	10 SEC
8. When 2nd stage cooking time has elapsed, oven beeps 5 times and shuts off.	*T.O.D. APPEARS*

3. Auto Defrost

OPERATION	DISPLAY
1. Press [Auto Defrost] Pad once.	1
2. Set the weight for 1000g by pressing [g] pad.	1000G
3. Press [Start] pad.	27 MIN 30 SEC
4. Press [Stop/Reset] pad twice. Oven shuts off.	*T.O.D. APPEARS.*

4. To Calculate Calorie

There are two procedures to calculate the cumulative calories (Step 1 to 4 and step 5 to 7)

OPERATION	DISPLAY
1. First Press [Food Category] pad and hold firmly until food category number appears. Food list can be found on operating instructions. e.g. Number 10	10
2. Set the weight of the food by pressing [g] pad. e.g. Weight 100 g.	100 G
3. Press [Calorie/Memory] pad. The calories appears on the display.	10K CAL
4. To calculate cumulative calories: Press [Calorie/Memory] pad again.	10
5. Press [Food/Category] pad.	10
6. Number of calorie also can be entered directly by pressing [Time] pad. e.g. 400 calories.	400K CAL
7. Press [Calorie/Memory] pad to add into cumulative calories.	410K CAL

Note:

1. To recall the cumulative calories:
   Press Calorie/Memory.
2. To cancel the cumulative calories:
   While the total calories are displayed in the display window, press Calorie/Total Pad again. While the number is blinking, press Stop/Reset Pad.
3. When the total calories are over 999,999 calories, "FULL" appears in the display window. "FULL" can be cancelled by pressing the Stop/Reset pad.

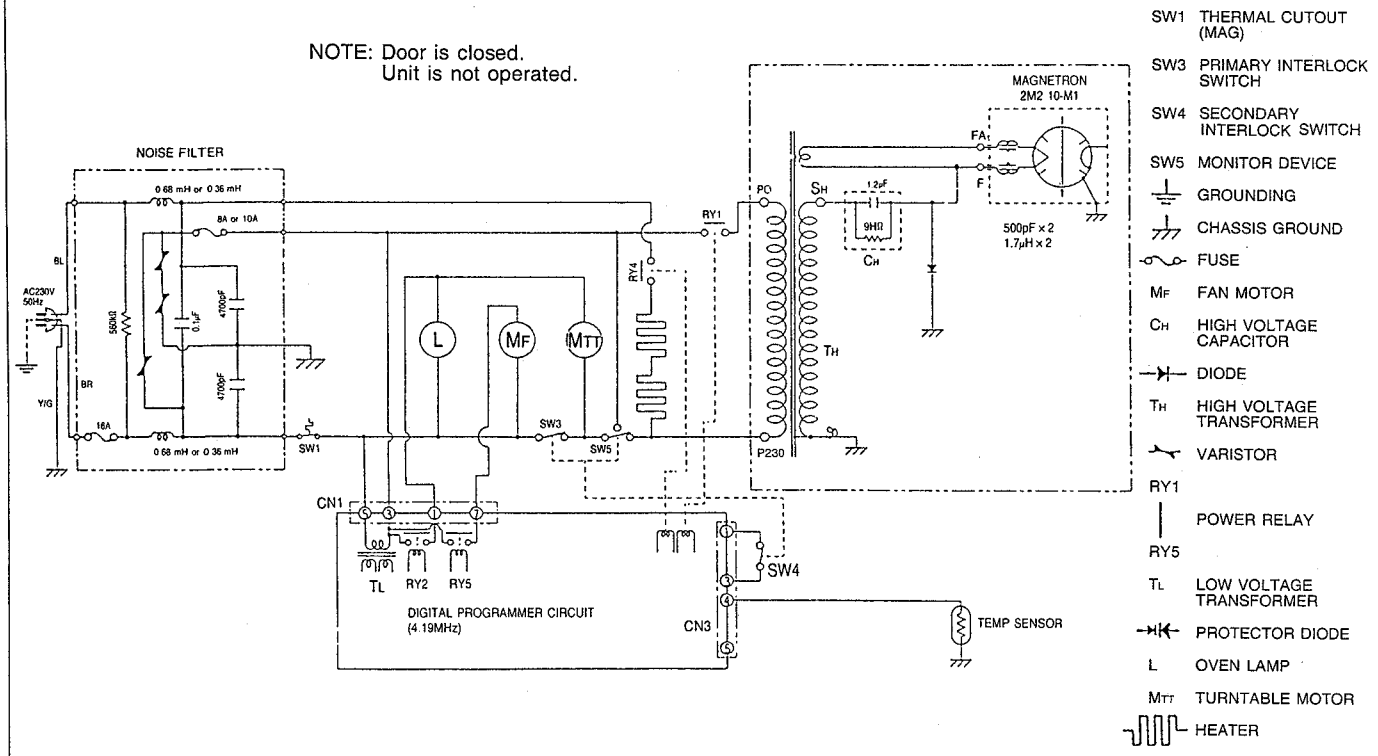
5. Grill

OPERATION	DISPLAY
1. Press Grill pad twice. To set grill 2.	GRILL 2
2. Set cooking time for 30 minutes by time pad.	30 MIN 00 SEC
3. Press start.	30 MIN 00 SEC
4. When cooking time has elapsed the oven will beep 5 times and turn off.	T.O.D. APPEARS

6. Combination Cooking

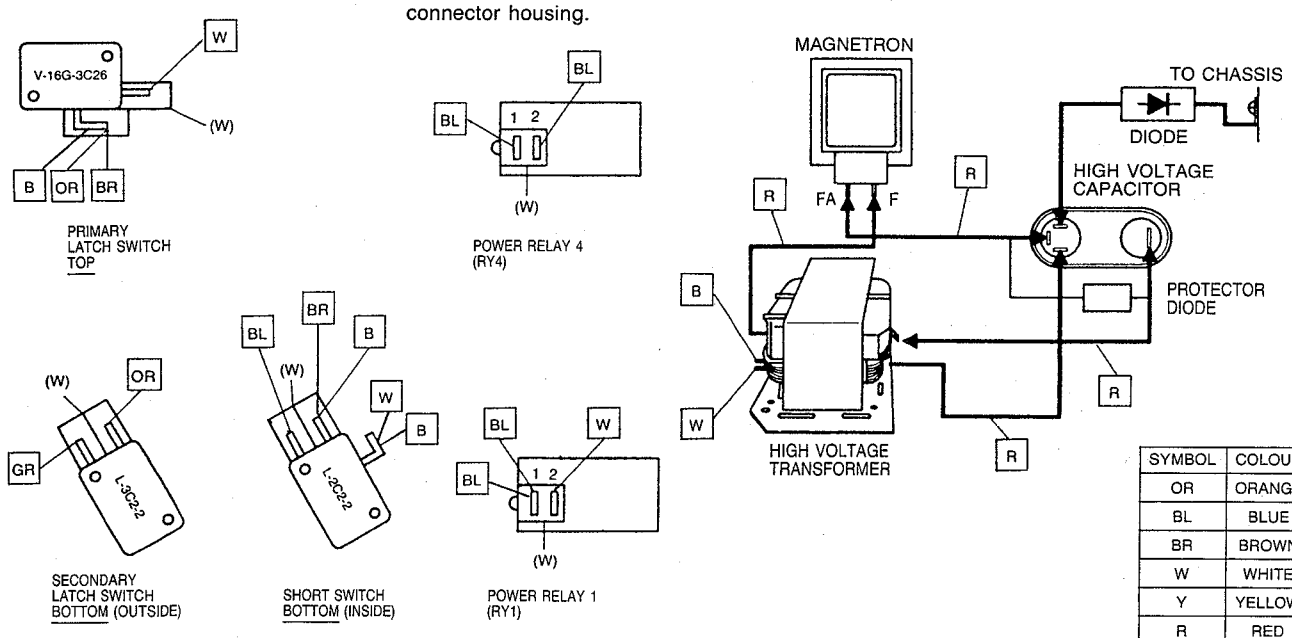
OPERATION	DISPLAY
1. Press Combination pad. To set combination mode.	
2. Press Micro Power pad twice for 440W power.	440W
3. Press Grill pad twice to set grill level two.	GRILL 2
4. Set cooking time for 10 minutes by pressing time pad.	10 MIN 00 SEC
5. Press start.	10 MIN 00 SEC
6. When cooking time elapses. Oven beeps five times.	T.O.D. APPEARS

SCHEMATIC DIAGRAM



WIRING DIAGRAM

NOTE: * When replacing, check the lead wire colour as shown.
* Colours shown by ( ) indicate colours of lead wire connector housing.



SYMBOL	COLOUR
OR	ORANGE
BL	BLUE
BR	BROWN
W	WHITE
Y	YELLOW
R	RED
GR	GREY
B	BLACK

DESCRIPTION OF OPERATING SEQUENCE

1. Variable power cooking control

The coil of power relay 1 (RY1) is energized intermittently by the digital programmer circuit, when the oven is set at any power selection except for High power position. The digital programmer circuit controls the ON-OFF time of power relay 1 contacts in order to vary the output power of the microwave oven from "Warm" to "High" power. One complete On and OFF cycle of power relay 1 is 22 seconds.

The relation between indications on the control panel and the output of the microwave oven is as shown in table.

NOTE 1: The ON/OFF time ratio does not correspond with the percentage of microwave power since approximately 2 seconds are required for heating of magnetron filament.

2: If microwave cooking is over 8 minutes at high power, fan motor rotates for 1 minute after cooking to cool oven.

POWER SETTING	OUTPUT POWER(W) APPROX.	ON-OFF TIME OF POWER RELAY 1 (RY1)	
		ON(SEC)	OFF(SEC)
HIGH	800	22	0
MEDIUM	560	17	5
LOW	420	13	9
SIMMER	240	8	14
WARM	90	4	18
CYCLIC DEFROST	APPROX. 250W	Please refer to description of cyclic defrost	

2. Cyclic defrost

When defrost power and defrosting time is selected and Start pad is touched:

(A) The digital programmer circuit (DPC) divides the total defrosting time into 8 equal periods, consisting of four defrosting periods, each followed by a standing period.

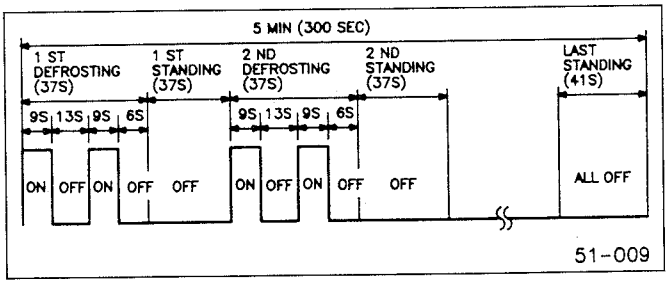
(B) During defrosting power periods, power relay 1 is energized for 9 seconds and de-energized for 13 seconds by DPC.

(C) During Standing periods, power relay 1 is always open resulting in no microwave power.

NOTE: Defrost time selected is converted into seconds by the DPC but display will show selected time in minutes and seconds as programmed. The total number of seconds is divided into 8 time periods. The remainder (seconds not equally divisible by 8) are added to the last standing time period.

Example: If Defrosting time is selected for 5 minutes, each operating period will be as follows:
5 minutes = 300 seconds
300/8 = 37 and remainder is 4 seconds.
The 4 seconds is added to the last time period.

NOTE: When defrosting time is selected for not more than 7 seconds, the power relay 1 will not be energized at all.



Grill NO.	HEATER (RY4)	
	ON (SEC)	OFF (SEC)
1	33	0
2	24	9
3	17	16

3. Grill cooking

There are three variable grill power.
The digital programmer circuit generates the power relay 4 control signal at a ON-OFF time as shown in the table.

4. Combination cooking

Combination cooking is accomplished by microwave and grill cooking. It can select grill power (1 ~3) and microwave power (MED ~WARM). The digital programmer circuit controls ON-OFF time of power relay 4 as shown in the table.

NOTE: After grill and combination cooking, fan motor rotates for 1 minute to cool oven and electric components.

Combination Cooking	HEATER (RY4)		Possible select Microwave power
	ON (SEC)	OFF (SEC)	
	33	0	MED ~ WARM
	24	9	MED ~ WARM
	17	16	MED ~ WARM

5. Auto Defrost, and Auto Weight Combination Control

When those auto control feature is selected and the Start pad is pressed:

(A) The digital programmer circuit determines the power level and cooking time to complete cooking and indicates the operating state in the display.
The table shows the corresponding cooking times for respective weights by categories.

(B) When cooking time in the display window has elapsed, the oven turns off automatically by the controlled signal from the digital programmer circuit.

NOTE: After Auto weight combination cooking, fan motor rotates for 1 minute to cool oven and electric components.

CATEGORY	SELECTED WEIGHT	TOTAL COOKING TIME
Auto Defrost No. 1	1000 g	10 Min. 00 Sec.
1. Fresh Vegetables	500 g	8 Min. 20 Sec.
9. Beef	500 g	10 Min. 50 Sec

CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is high voltage, high current equipment.
Though it is free from danger in ordinary use, extreme care should be taken during repair.

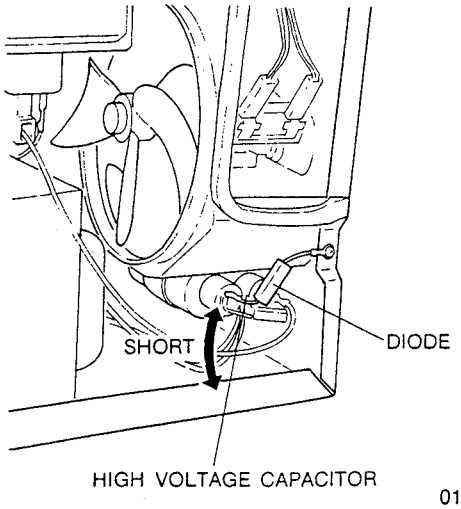
CAUTION
Servicemen should remove their watches whenever working close to or replacing the magnetron.

1. Check the earthing
Do not operate on a 2 wire extension cord. The microwave oven is designed to be used in a completely earthed condition. It is imperative, therefore, to make sure it is properly earthed before beginning repair work.

2. If the door lock, the door switch, the door seal or the door develops a malfunction, be sure not to operate the oven until complete repairs are made.
If the oven is operated with any of these parts in imperfect condition, hazardous microwave leakage might occur.

WARNING
Never operate the oven until the following are confirmed:
(A) The door is tightly closed.
(B) There is no broken hinge or door arm.
(C) The door seal is not damaged.
(D) The door is not bent or warped.
(E) There is no other visible damage.

3. Warning about the electric charge in the high voltage capacitor.
For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor. When replacing or checking parts, remove the power plug from the outlet, wait 30 seconds and short the terminal of the high voltage capacitor (terminal of lead wire from diode) to chassis ground with an insulated jumper lead wire or an insulated handle screwdriver to discharge.



01-003

Touch chassis side first then short to the high voltage capacitor terminal.

Important Note
1. High voltage above 250 volts are existing on following parts during operation.
   *Magnetron
   *High Voltage Transformer
   *High Voltage Diode
   *High Voltage Capacitor
   Unusual attention should be paid during repair or troubleshooting of product.
2. If the microwave oven is operated with incorrect installed door hinge or magnetron, it can cause microwave leakage of over 5mW/cm^2.
   Hence it is absolutely necessary to check if magnetron and door hinge are correctly and safely installed after repairs or replacement.

WARNING
Never touch any circuit wiring with your hand nor with an insulated tool during operation.

4. When parts must be replaced, always remove the power plug from the outlet, and discharge the high voltage capacitor.

5. Confirm after repair
(A) After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwave might leak if screws are not properly tightened.
(B) Make sure that all electrical connections are tight before inserting the plug into the wall outlet.

6. Avoid inserting nails, wire, etc. through holes in unit during operation.
Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

7.

CAUTION
MICROWAVE RADIATION
Personnel should not be exposed to the microwave energy which may radiate from the magnetron or other microwave generating device if it is improperly used or connected all input and output microwave connections waveguides, flanges, and gasket must be secure. Never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

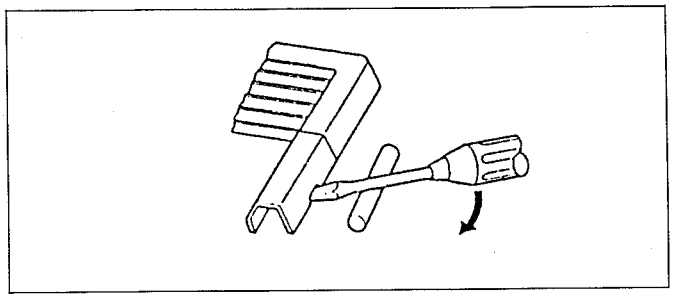
8.

CAUTION
High voltage parts may become uncovered when outer cabinet is removed.

DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

1. Trim Removal

Insert flat screw driver and set small bar as illustration then push down handle.
NOTE: If the screw driver is pulled up, the side trim may be damaged.

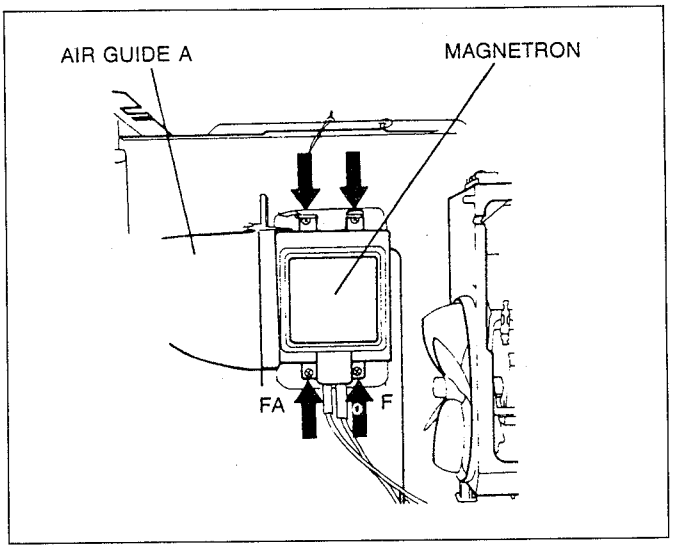


2. Magnetron

(A) Discharge the high voltage capacitor.
(B) Remove 1 screw holding thermal cutout mount plate.
(C) Remove 1 screw holding air guide A.
(D) Disconnect 2 high voltage lead wires from magnetron filament terminals.
(E) Remove 4 screws holding the magnetron.
NOTE: After replacement of the magnetron, tighten mounting screws properly making sure there is no gap between the waveguide and the magnetron to prevent microwave leakage.

CAUTION
When replacing the magnetron, be sure the antenna gasket is in place.

CAUTION
When connecting 2 filament lead wires to the magnetron terminals, be sure to connect the lead wires in the correct position. The lead wire of high voltage transformer should be connected to "F terminal" and the lead wire from high voltage capacitor should be connected to "FA terminal".

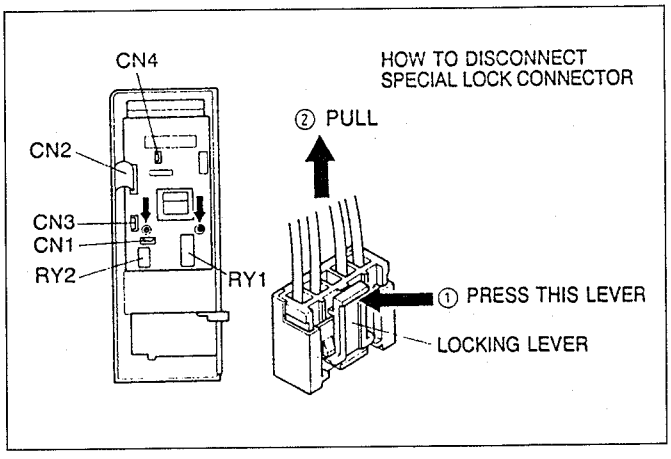


3. Digital programmer circuit (DPC) and membrane key board.

NOTE: Be sure to ground any static electric charge built up on your body, before handling the DPC.
(A) Disconnect all connectors from DPC.
(B) Remove 2 screw holding escutcheon base and slide the escutcheon base upward slightly.
(C) Release CN2 connector's lock of DPC by pushing both levers to inside and pull them upward, and remove flat cable of membrane key board.
(D) Remove 2 screws holding DPC.

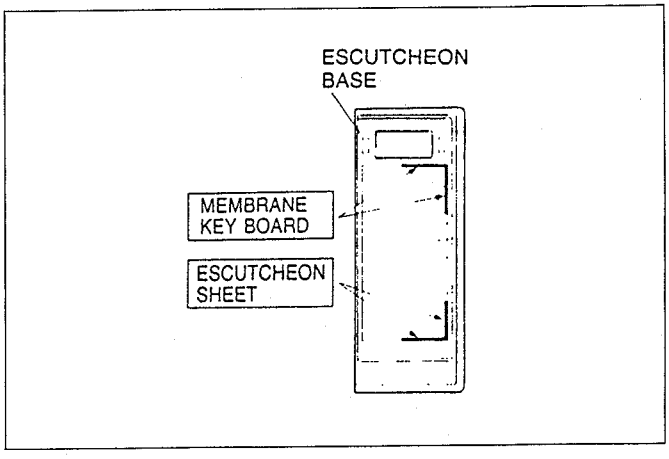
To replace membrane key board

(E) Remove escutcheon bracket from escutcheon base by freeing 4 catch hooks on the escutcheon base.
(F) Peel off the tub of membrane key board from escutcheon base.
(G) Peel off display filter from escutcheon base.
(H) Push the upper part of key board (display window portion) from back of escutcheon base and peel off membrane key board completely from escutcheon base.
NOTE 1. The membrane key board is attached to the escutcheon base with double faced adhesive tape. Therefore, applying hot air such as using of hair dryer is recommended for smoother removal.
2. When installing new membrane key board, make sure that the surface of escutcheon base is cleaned sufficiently so that any problems (shorted contacts or uneven surface) can be avoided.
3. Alignment position of membrane key board and escutcheon sheet are as follows (See figure);
Membrane key board: Right and upper edges
Escutcheon sheet: Right and lower edges



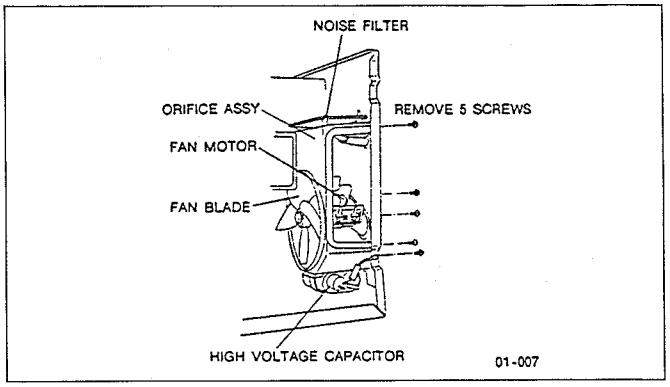
4. Low voltage transformer and/or power relays

NOTE: Be sure to ground any static electric charge built up on your body before handling the DPC.
(A) Using solder wick or a desoldering tool and 30W soldering iron, carefully remove all solder from the terminal pins of the low voltage transformer and/or power relays.
NOTE: Do not use a soldering iron or desoldering tool of more than 30 watts on DPC contacts.
(B) With all the terminal pins cleaned and separated from DPC contacts, remove the defective transformer/power relays and install new transformer/power relays making sure all terminal pins are inserted completely. Resolder all terminal contacts carefully.



5. Fan motor

(A) Disconnect 2 lead wires from fan motor terminals.
(B) Remove the noise filter by freeing catch hooks.
(C) Disconnect 4 high voltage lead wires from high voltge capacitor terminals.
(D) Remove 5 screws holding fan motor and orifice assy and detach the orifice assy with fan motor from oven assy.
(E) Remove fan blade from the fan motor shaft by pulling it straight out.
(F) Separate the fan motor from the orifice assy by freeing 2 catch hooks on the orifice assy.

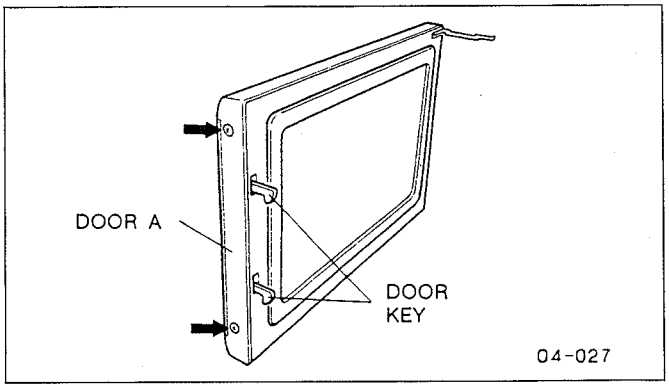


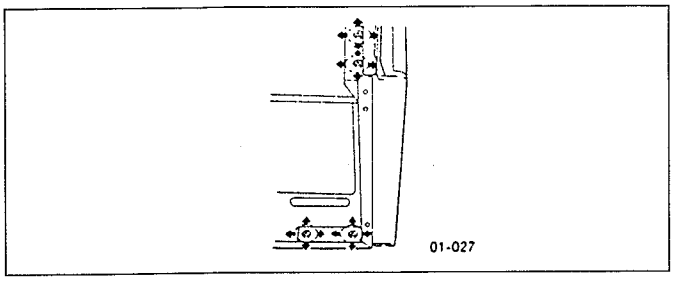
6. Door assembly

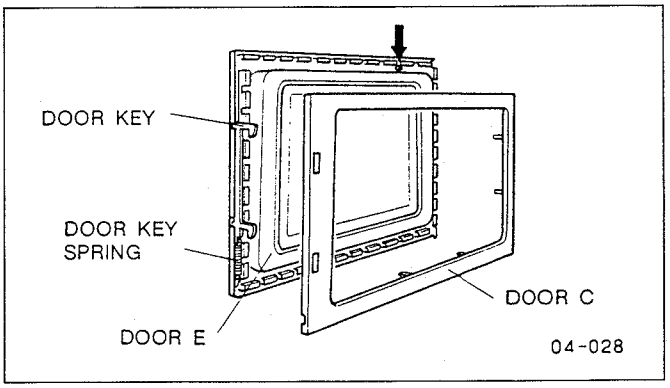
Note: Door A can be replaced without removing the door C.
(A) Remove door A by removing 2 screws holding side frames.
(B) Separate door C from door E by inserting a flat blade screwdriver between them.
Note: Door C is attached to door E by hooks. The hooks may be damaged or broken when separating these. When you replace door E, please use door C enclosed with door E. When you need to replace door key or door key spring, please arrange to prepare door C also for safety sake.
(C) Remove door key or door key spring.

After replacement of the defective component parts of the door, reassemble it and follow the instructions below for proper installation and adjustment so as to prevent an excessive microwave leakage.

(1) When mounting the door to the oven, be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge and lower hinge in the direction necessary for proper alignment.
(2) Adjust so that the door has no play between the inner door surface and oven front surface. If the door assembly is not mounted properly, microwave may leak from the clearance between the door and oven.
(3) Perform the microwave leakage test.

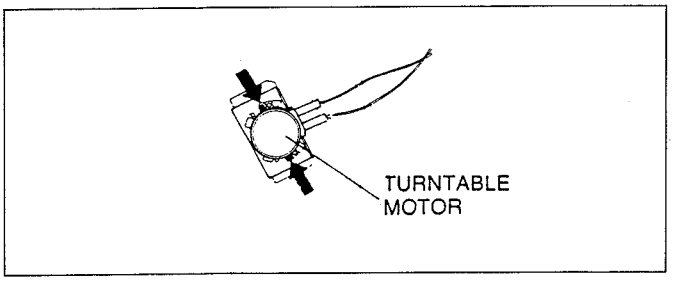


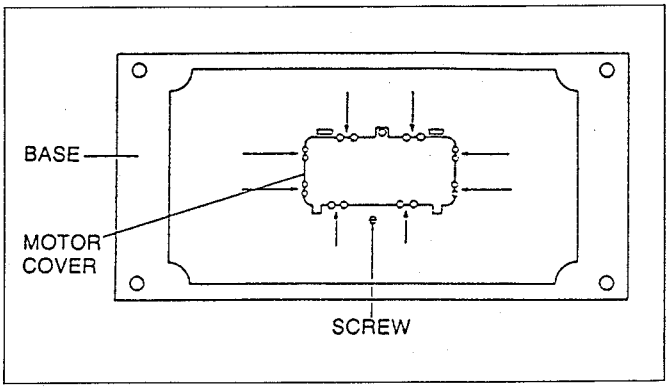




7. Turntable motor

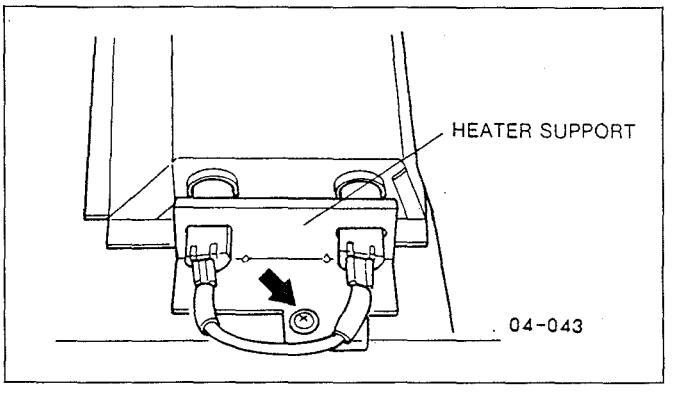
(A) Remove the motor cover by breaking off at the 8 spots indicated by arrows with a cutter or the like. (See Figure)
NOTE: After breaking off the motor cover, make sure that cut-off portions are properly trimmed off or bend to inside so that no sharp edge will expose to outside.
(B) Disconnect 2 lead wires conneced to the turntable motor.
(C) Remove the turntable motor by removing 2 screws.
NOTE: To reinstall the motor cover, insert two tabs and use 1×6 screw.

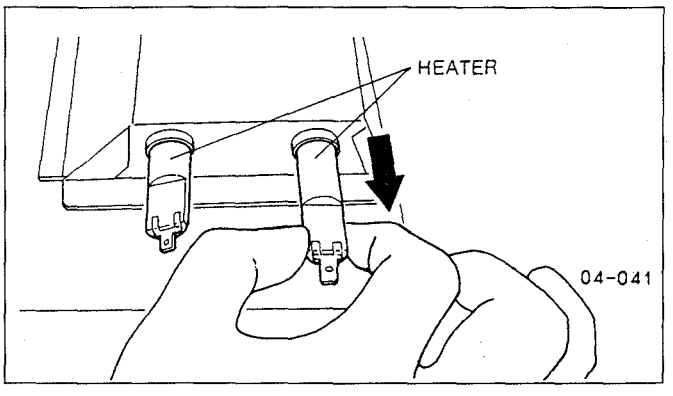




8. Quartz heater

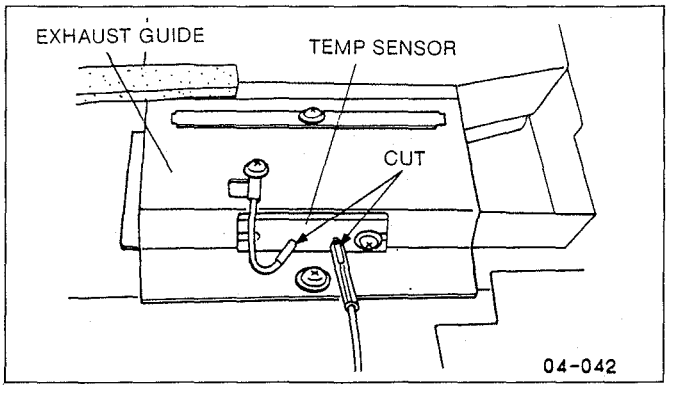
(A) Disconnect lead wires from heater terminals.
(B) Remove 1 screw holding heater support.
(C) Remove the heater by pulling it out.





9. Temp sensor (thermal protector)

(A) Cut lead wire at the top of sensor terminals.
(B) Remove 1 screw holding the temp sensor and replace with new one.
(C) Solder the lead wires securely to the sensor terminals.



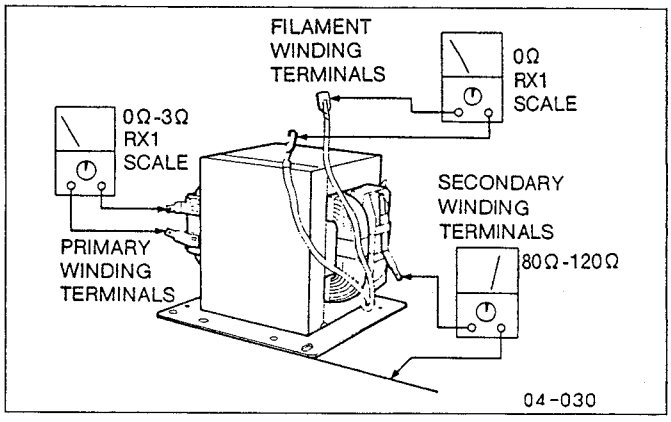
COMPONENT TEST PROCEDURE

CAUTION

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.

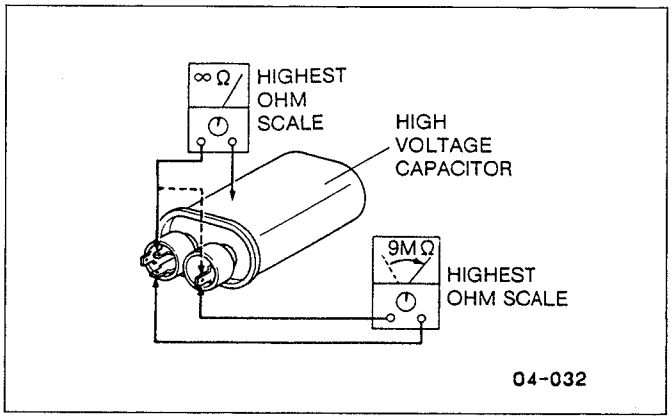
1. High voltage transformer

(A) Remove connections from the transformer terminals and check continuity.
(B) Normal (cold) resistance readings should be as follows:
Secondary winding .....Approx. 80Ω ~120Ω
Filament winding .....Approx. 0Ω
Primary winding .....Approx. 0Ω ~3Ω



2. High voltage capacitor

(A) Check continuity of capacitor with meter on highest OHM scale.
(B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show constant 9MΩ.
(E) Resistance between each terminal and chassis should be infinite.

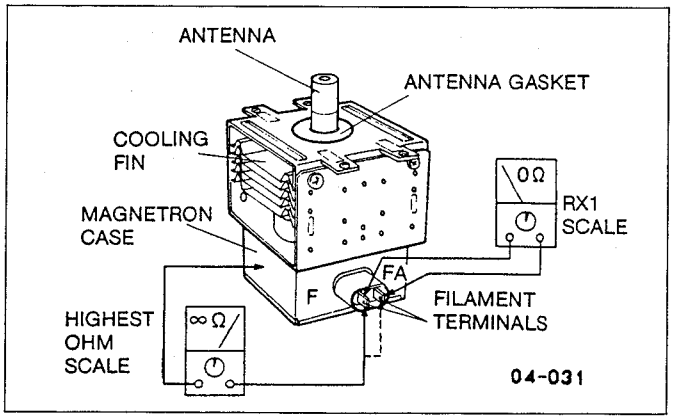


3. Magnetron

Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.
(A) Isolate magnetron from the circuit by disconnecting the leads.
(B) A continuity check across magnetron filament terminals should indicate one ohm or less.
(C) A continuity check between each filament terminal and magnetron case should read open.

4. Diode

(A) Isolate the diode from the circuit by disconnecting the leads.
(B) With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions.
A normal diode's resistance will be infinite in one direction and several hundred kΩ in the other direction.

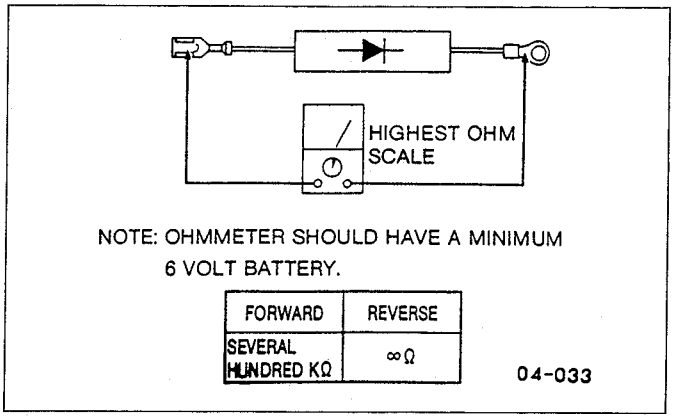


5. Membrane key board (Membrane switch assembly)

Check continuity between switch terminals, by tapping an appropriate pad on the key board. The contacts assignment of the respective pads on the key board is as shown in digital programmer circuit.

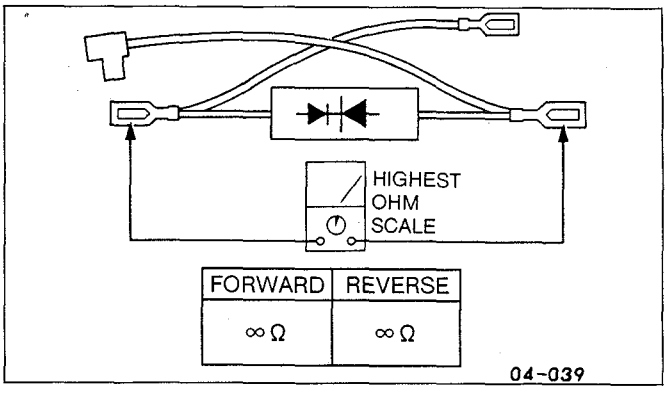
6. Temp sensor (Thermal protector)

A temp sensor is mounted on top of the oven cavity at the left side. Its purpose is to automatically shut off the oven in case the cavity overheats for any reason.
The thermal protector will operate at 257°F (125°C).
The device is connected to the DPC on touch control models. When the thermal protector exceeds its temperature it will turn off the power to oven cavity and display will go to reset mode.
The cooking program can be reset after cool-down.
THERMISTOR RESISTANCE VALUE
30K-120K at 10°C-30°C (50°F-86°F)



7. Protector diode

(A) Isolate the protector diode assembly from the circuit by disconnecting its leads.
(B) With the ohmmeter set on the highest resistance scale, measure the resistance across the protector diode terminals.
Reverse the meter leads and again observe the resistance reading.
A normal protector diode's resistance will be infinite in both directions.
It is faulty if it shows continuity in one or both directions.



MEASUREMENTS AND ADJUSTMENTS

1. Adjustment of Primary latch switch, Secondary latch switch and short switch

(A) When mounting Primary latch switch, Secondary latch switch and short switch to door hook assembly, mount the Primary latch switch, the Secondary latch switch and the short switch to the door hook assembly as shown in Figure.

NOTE: No specific adjustment during installation of Primary latch switch, Secondary latch switch and short switch to the door hook is necessary.

(B) When mounting the door hook assembly to the oven assembly, adjust the door hook assembly by moving it in the direction of arrow in Figure so that the oven door will not have any play in it. Check for play in the door by pulling the door assembly. Make sure that the latch keys move smoothly after adjustment is completed. Completely tighten the screws holding the door hook assembly to the oven assembly.

2. Measurement of microwave output

The output power of the magnetron can be determined by performing IEC standard test procedures. However, it is possible to test the magnetron by following procedure outlined below.

Necessary equipment:

* 1 litre beaker * Glass thermometer
* Wrist watch or stopwatch

NOTE: Check the line voltage under load to ensure it meets specifications. Low voltage condition will cause a reduction in magnetron output. Temperature readings and heating time should be as accurate as possible.

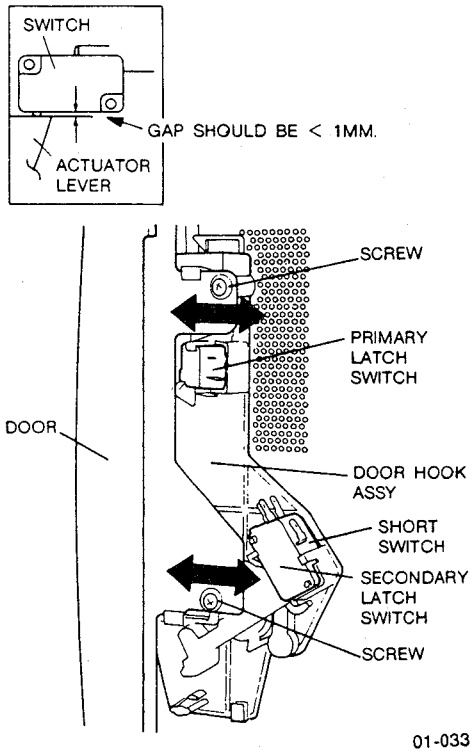
Output power performance test procedure.

(A) Fill the beaker with exactly one litre of tap water.
Stir the water using the thermometer and note the temperature.
(Record as T1).

(B) Place the beaker in the centre of cook plate.
Set the oven for High power and heat for exactly one minute.

(C) After completion of the heating cycle, stir the water again with the thermometer and note the temperature.
(Record as T2).

The normal temperature rise (T1-T2), for these models should be more than 7°C using the High power selection with the oven operating at the specified line voltage.



Please confirm that the gap between the switch housing and switch actuator levers is no more than 1.0mm when the door is closed.

TROUBLESHOOTING GUIDE

CAUTION

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge high voltage capacitor.
4. When checking the continuity of the switches or the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
5. Do not touch any parts of the circuitry on the digital programmer circuit, since static electric discharge may damage this control panel.
   Always touch yourself to ground while working on this panel to discharge any static charge in your body.
6. A 220V AC is present at the shaded area ▩ of the digital programmer circuit (Terminals of power relays and primary circuit of low voltage transformer). When troubleshooting, be cautious of possible electrical shock hazard.

First of all operate the microwave oven following the correct operating procedures described in order to find the exact cause of any trouble.

(TROUBLE 1) Oven does not start cooking

	SYMPTOM	CAUSE	CORRECTIONS
1.	Oven is dead. Fuses are OK. No display and no operation at all.	1. Open or loose lead wire harness.	
		2. Open thermal cutouts (Magnetron)	Check fan motor when thermal cutout is defective.
		3. Open low voltage transformer 4. Defective DPC	
2.	Oven does not accept key input (Program)	1. Key input is not in-sequence	Refer to operation procedure.
		2. Open or loose connection of membrane key pad to DPC (Flat cable) 3. Shorted or open membrane key board	
		4. Defective DPC	Refer to DPC troubleshooting.
3.	Oven lamp and turntable motor turn on when oven is plugged in with door closed.	1. Misalignment or loose wiring of secondary latch switch.	Adjust door and latch switches.
		2. Defective secondary latch switch	
4.	Timer starts count down but no microwave oscillation.	1. Off-alignment of latch switches	Adjust door and latch switches.
		2. Defective primary latch switch 3. Open or loose wiring of power relay 1 4. Defective power relay 1 5. Defective DPC 6. Open or loose connection of high voltage circuit especially magnetron filament circuit NOTE: Large contact resistance will bring lower magnetron filament voltage and causing magnetron to lower output and/or intermittent oscillation.	
		7. Defective high voltage component H.V.Transformer H.V.Capacitor H.V.Diode Magnetron.	Check high voltage component according to component test procedure and replace if it is defective.

(TROUBLE 2) Fuse is blown

	SYMPTOM	CAUSE	CORRECTIONS
1.	10A fuse is blown.	1. Shorted lead wire harness	
		2. Defective primary latch switch and short switch.	Check adjustment of latch switches and door.
		3. Shorted H.V. Capacitor	
		4. Shorted H.V. Diode	Replace H.V. Diode and protector diode (*NOTE)
		5. Defective magnetron	Replace magnetron and protector diode (*NOTE)
		6. Shorted H.V. Transformer	Replace H.V. Transformer and protector diode (*NOTE)
		7. Protector diode	
		8. Shorted heater (plug fuse)	
		9. Defective power relays	
		10. Defective DPC	
		*NOTE: Be sure to replace protector diode together with those H.V. Components. In this case, only D2 of protector diode may be shorted due to faulty H.V. Component. Therefore, if protector diode is not replaced together, high voltage transformer will be damaged (over heated).	

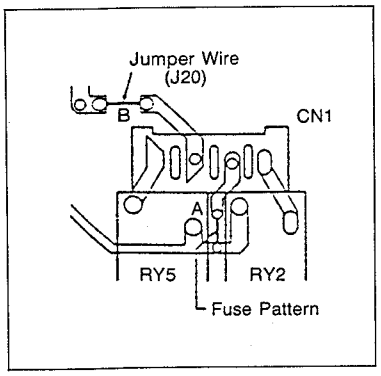
(TROUBLE 3) Other troubles

	SYMPTOM	CAUSE	CORRECTIONS
1.	Microwave output is low. Oven takes longer time to cook food.	1. Decrease in power source voltage	Consult electrician.
		2. Open or loose wiring of magnetron filament circuit. (Intermittent oscillation.) 3. Ageing change of magnetron.	
2.	Turntable motor and oven lamp turn on when door is opened.	1. Shorted primary latch switch	
3.	Loud buzzing noise can be heard.	1. Loose fan and fan motor. 2. Loose screws on H.V. Transformer	
4.	Oven stops operation during cooking	1. Off-alignment of latch switches.	Adjust door and latch switches.
		2. Open or loose wiring of primary and secondary latch switch. 3. Operation of thermal cutout (Magnetron).	
5.	Oven does not operate and returns to plugged in mode.	1. Open or loose wiring of oven temp sensor 2. Defective oven temp sensor 3. Defective DPC	

(TROUBLE 4) Trouble related to Digital Programmer Circuit

SYMPTOM	STEP	CHECK	RESULT	CAUSE/CORRECTIONS
No display when oven is first plugged in	1	Fuse pattern of DPC	Normal	STEP 2
			Open (NOTE)	Shorted circuit of ZNR, L.V.T., Oven Lamp etc. Replace DPC
	2	Low voltage transformer (LVT) secondary voltage	Abnormal 0V	LVT
			Normal	→ Step 3
	3	IC-1 pin 51 voltage (Emitter of Q1)	Abnormal	ZD1,Q1
			Normal = 5V	→ Step 4
	4	IC-1 pin 12 voltage (14 pin of IC-2)	Abnormal	IC-2
			Normal	→ IC-1, CX1, DISPLAY

NOTE

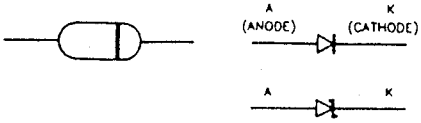


Procedure of fuse pattern repairing is as follows:
1. Remove jumper wire (J20).
2. Insert removed jumper wire (J20) to "A" position and solder it.
   If both "A" and "B" fuse pattern are open, please replace DPC.

NOTE: *At the time of these repairs, make visual inspection of the varistor for burning damage and examine the transformer with tester for the presence of layer short-circuit (check primary coil resistance).
If any abnormal condition is detected, replace the defective parts.

HOW TO CHECK THE SEMICONDUCTORS USING AN OHM METER

Diode



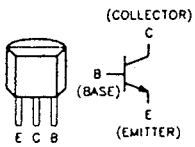
	FORWARD	REVERSE
A-K	SMALL	∞

Transistor

NPN Transistor

2SC·····

2SD·····

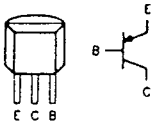


	FORWARD	REVERSE
B-E	SMALL	∞
B-C	SMALL	∞
C-E	∞	∞

PNP Transistor

2SA·····

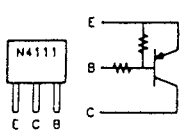
2SB·····



	FORWARD	REVERSE
E-B	SMALL	∞
C-B	SMALL	∞
C-E	∞	∞

Digital Transistor

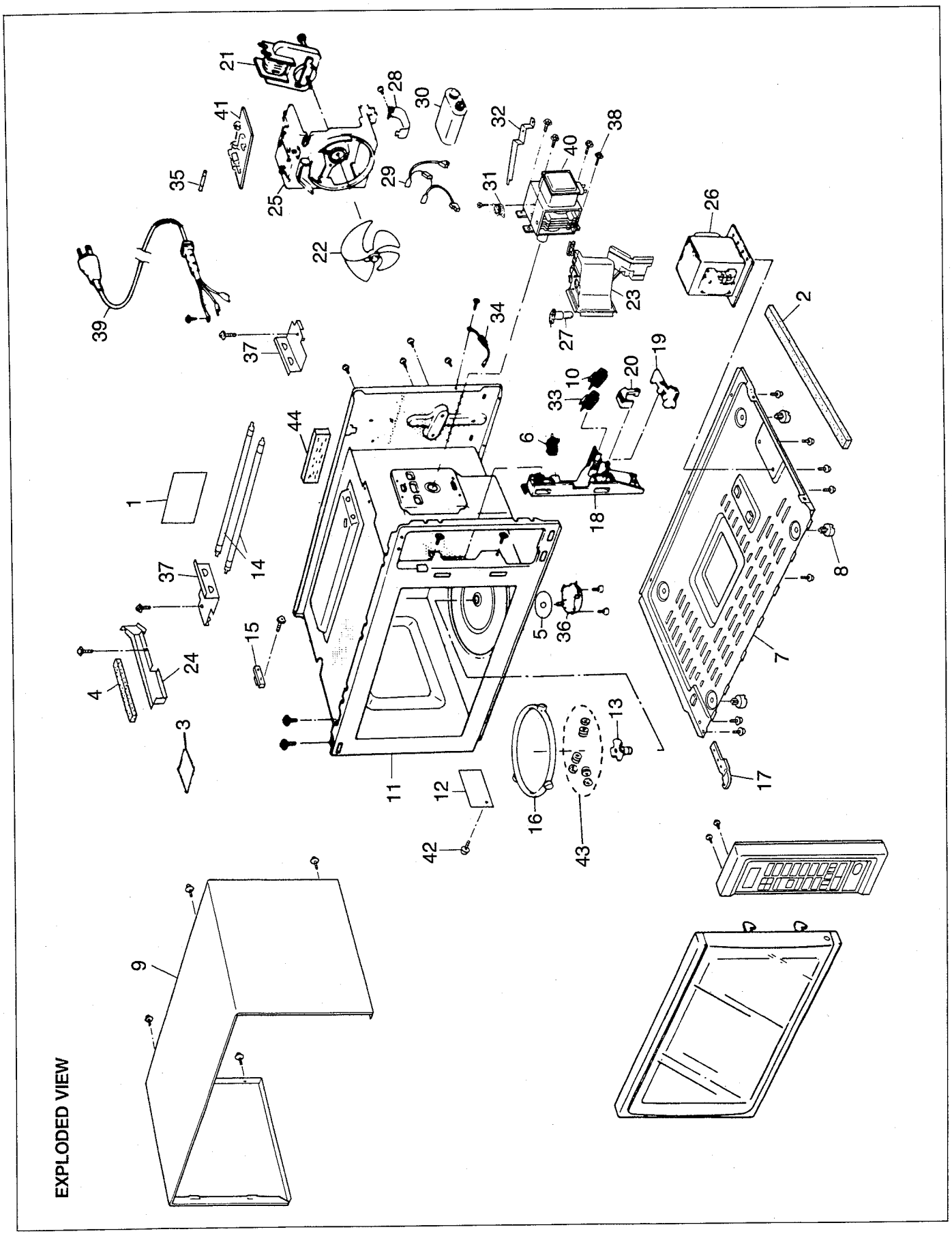
PNP Transistor



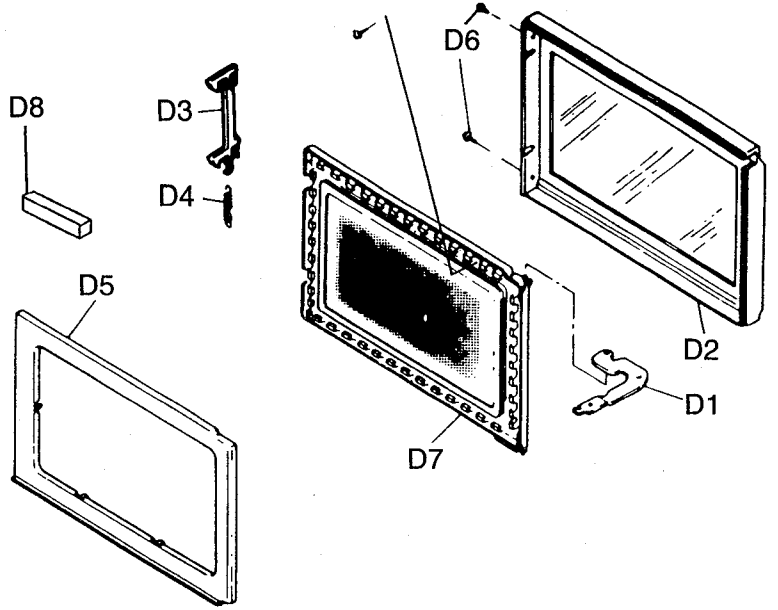
	FORWARD	REVERSE
E-B	10kΩ~30kΩ	10kΩ~30kΩ
C-B	50kΩ~90kΩ	∞
C-E	40kΩ~80kΩ	∞

SYMPTOM	STEP	CHECK	RESULT	CAUSE/CORRECTIONS
No key input	1	Membrane switch continuity	Abnormal	Membrane switch
			Normal	IC-1
No beep sound	1	IC-1 pin 50 voltage	Abnormal	IC-1
			Normal	BZ
Power relay A(RY-2) does not turn on even though the program has been set and the start pad is tapped	1	IC-1 pin 6 voltage while operation.	Abnormal	IC-1
			Normal = 5V	→ Step 2
	2	Short circuit between pin 1 and pin 12 of IC-2.	Still not turn on	RY-2
			RY-2 turns on	IC-2
No microwave oscillation at any power setting	1	IC-1 pin 8 and pin 49 voltages while operation at high power.	Abnormal	IC-1
			Normal 8---5V, 49---5V	→ Step 2
	2	Q3 transistor	Abnormal	Q3
			Normal	IC-2, RY-1
Dark or unclear display	1	Replace display and check operation	Normal	DISPLAY
			Abnormal	IC-1
Missing or lighting of unnecessary segment	1	Replace IC-1 and check operation	Normal	IC-1
			Abnormal	DISPLAY

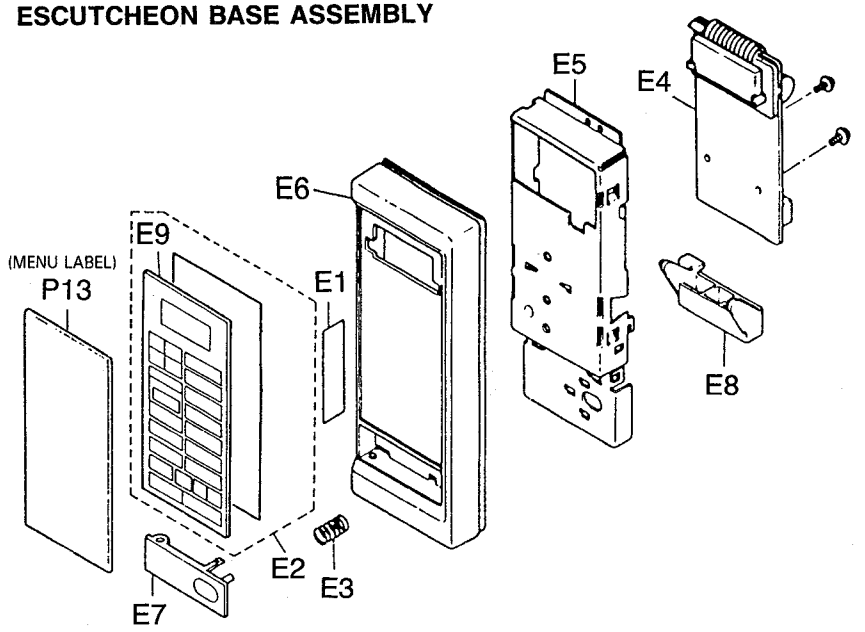
EXPLODED VIEW AND PARTS



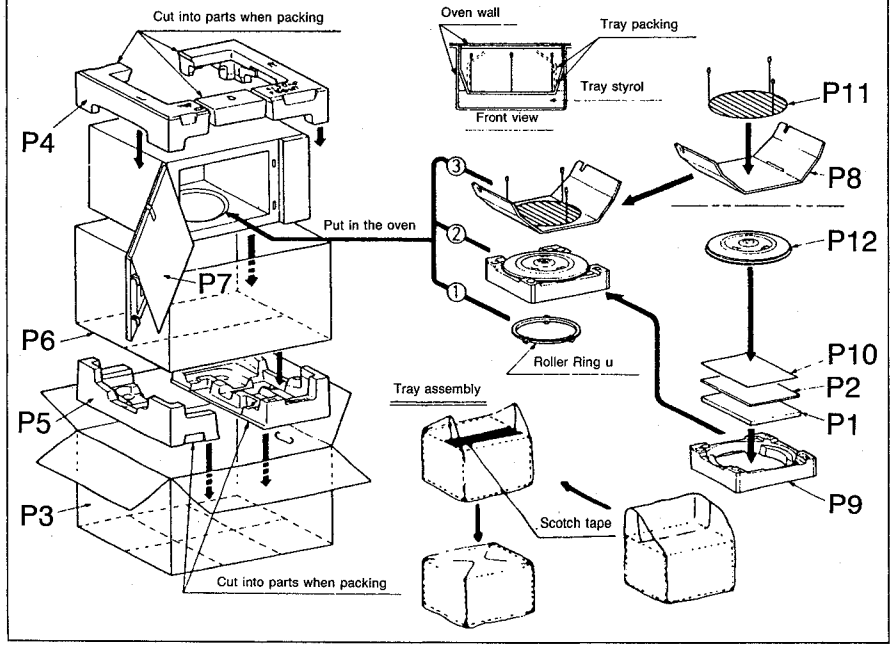
DOOR ASSEMBLY



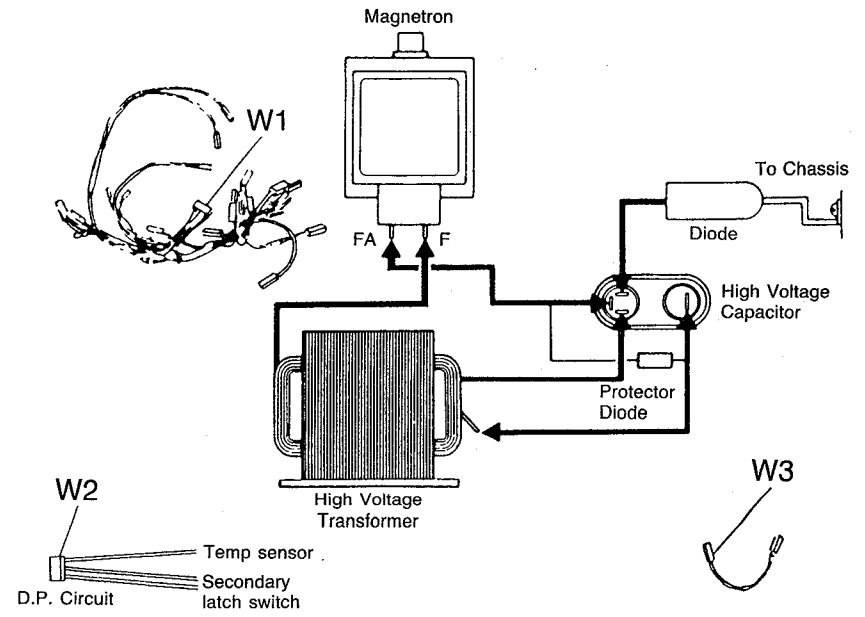
ESCUTCHEON BASE ASSEMBLY



PACKING AND ACCESSORIES



WIRING MATERIAL



PARTS LIST

NOTE 1: When ordering replacement part(s), please use part number(s) shown in this parts list.
Do not use description of the part.
2: Important safety notice:
Components identified by ⚠mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
3: Alphabet marks in Remarks columns (i.e. EPQ) indicate parts applicable to only specified country models as follows

EPG: FOR EUROPE

Parts without these marks can be used for all models.
4: Items marked * are supplied by MELUK.

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
*1		E00062Q3EP	Caution label	1	
*2		E09020000AL	Cushion rubber	1	
*3		E04906520GP	Heater label	1	
*4		E09030000AN	Cushion rubber	1	
*5		E63526700BP	*Turntable motor sheet*	1	
6	⚠	ANE61424L0AG	Micro switch	1	Primary latch (V-16G-3C26)
*7		E10016700BP	Base	1	
8		ANE1008-3W0	Rubber foot	4	
*9		E110D6700HBP	Outer panel	1	NN-H553B
*9		E110D6700BP	Outer panel	1	NN-H503B
10	⚠	A61425180AP	Micro switch	1	Secondary latch switch (L-3C2-2)
*11		E200A6700BP	Oven	1	
12		A20556520GP	Cover	1	
13		A21315870GP	Pulley shaft	1	
14		A630G6520BP	Heater A assy	2	
15		A601L5180AP	*Temp sensor*	1	
16		A290D5850GP	Roller ring (U)	1	
*17		E30076700AP	Lower hinge	1	
18		A30204310AG	Door hook	1	
19		A31374650AP	Hook spacer B	1	
20		A31384650AP	Hook spacer C	1	
*21	⚠	E400A4760JP	Fan motor	1	(AC, 26W, Single)
22		ANE40086W0AP	Fan	1	
*23		E40254760JP	Air guide A	1	
*24		E40266700BP	Air guide B	1	
*25		E41445750GP	Orifice	1	
*26	⚠	E621B6520GP	H.V. Transformer	1	
*27		E610T6700BP	Incandescent lamp	1	(20W, 240V)
*28		E60374760GP	Capacitor bracket	1	
*29		E606V4760JP	Protection diode	1	
30	⚠	A60906520GP	H.V. capacitor	1	(1.2μF, AC2100V)
*31	⚠	E61454000AP	*Thermal cutout*	1	
*32		E66266700BP	Thermal cutout bracket	1	
33	⚠	ANE6161-3XO	Microswitch	1	(V-16G-1C25) short switch
*34		E62024000AP	Diode, S1	1	
35	⚠	ANE6230P10GN	Fuse	1	(8A)
*36	⚠	E63264760JP	Turntable motor	1	(AC, 3W, single)
*37		E64606700BP	Heater bracket	2	
38		XTWANE4+10RU	Screw	4	4×10 (for magnetron)
*39	⚠	E900C5870GP	AC cord w/plug	1	
*40	⚠	2M210-M1E	Magnetron	1	
*41		E692Y6700UP	Noise filter	1	
42		XST4+5VS	Screw	1	4×5 (for cover)
43		A202K5850GP	Roller B(U)	3	(Note 4)
*44		E09010000BG	*Cushion rubber*	1	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
DOOR ASSEMBLY					
*D1		E30067300AP	Upper hinge	1	
*D2		E302A6700HUP	Door A (U)	1	NN-H553BEPG
*D2		E302A6700UP	Door A (U)	1	NN-H503BEPG
*D3		E30184650AP	Door key	1	
D4		A30214000AP	*Door key spring*	1	
*D5		E30856750BP	Door C	1	
D6		XTBANE3+8BC	Screw	2	3×8 NN-H553BEPG
D6		XTBANE3+8BZ	Screw	2	3×8 NN-H503BEPG
*D7		E302K6750BP	Door E (U)	1	
*D8		E09230000CG	Sponge	1	
ESCUTCHEON BASE ASSEMBLY					
*E1		E00076700UP	Name plate	1	
*E2		E630Y6700EP	Membrane switch (U)	1	NN-H503BEPG
*E2		E630Y6700HEP	Membrane switch (U)	1	NN-H553BEPG
E3		ANE80378A0AG	Cook button spring	1	
*E4		E603L6700UP	*D.P. circuit (U)*		
*E5		E81276700BP	Escutcheon back plate	1	
*E6		E80346700HBP	Escutcheon base	1	(Note 5) NN-H553BEPG
*E6		E80346700BP	Escutcheon base	1	(Note 5) NN-503BEPG
*E7		E80727010AP	Door opening button	1	NN-503BEPG
*E7		E80727010HAP	Door opening button	1	NN-553BEPG
*E8		E82567010AP	*Door opening lever*	1	
*E9		E83376700EP	Escutcheon sheet	1	NN-H503BEPG
*E9		E83376700HEP	Escutcheon Sheet	1	NN-H553BEPG
PACKING AND ACCESSORIES					
*P1		E000B6700EP	Cook book	1	
P2		E00036700BP	Instruction book	1	
*P3		E01026700EP	Packing case, paper	1	
*P3		E0102670HEP	Packing case paper	1	
*P4		E01046700BP	Upper filler	1	
*P5		E01056700BP	Lower filler	1	
*P6		E01064060BP	Vinyl cover	1	
*P7		E01074060BP	Door sheet	1	
*P8		E01086700UP	Tray packing	1	
*P9		E01136700BP	Tray styrol	1	
*P10		E01695750BP	Service Center list	1	
*P11		E060V5870SP	Rack Wire	1	
P12		E06016700BP	Glass cooking tray	1	
*P13		E03346700EZ	Menu label	1	NN-H503BEPG Italian
*P13		E03346700SZ	Menu label	1	NN-H503BEPG Spanish
*P13		E03346700FZ	Menu label	1	NN-H503BEPG French
*P13		E03346700AZ	Menu label	1	NN-H503BEPG English
*P13		E03346700HZ	Menu label	1	NN-H503BEPG Dutch
*P13		E03346700RZ	Menu label	1	NN-H503BEPG Greek

PACKING AND ACCESSORIES

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
*P13		E03346700PZ	Menu label	1	NN-H503BEPG Portuguese
*P13		E0334670OHEZ	Menu label	1	NN-H553BEPG Italian
*P13		E0334670OHSZ	Menu label	1	NN-H553BEPG Spanish
*P13		E0334670OHFZ	Menu label	1	NN-H553BEPG French
*P13		E0334670OHAZ	Menu label	1	NN-H553BEPG English
*P13		E0334670OHHZ	Menu label	1	NN-H553BEPG Dutch
*P13		E0334670OHRZ	Menu label	1	NN-H553BEPG Greek
*P13		E0334670OHPZ	Menu label	1	NN-H553BEPG Portuguese

WIRING MATERIAL

*W1		E030A6700UP	Lead wire harness	1	
*W2		E030F6700BP	Lead wire	1	
*W3		E03596540GP	Grill link	1	

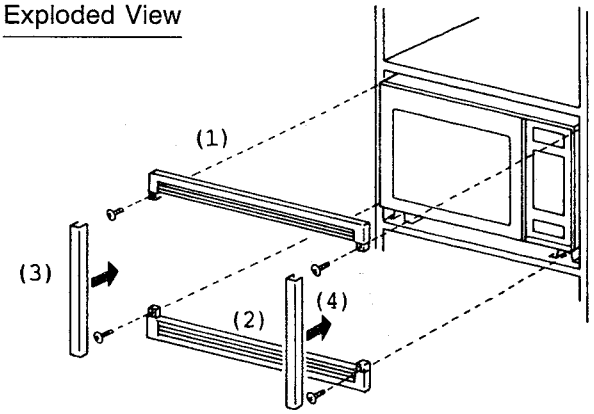
REF. NO. 55 NOISE FILTER (U)

C1		ECQU2A104MN	Polyester capacitor	1	01μF 250V, 20%
C2,3		ECKDNS472MEX	Ceramic capacitor	2	0.0047μF 250V, 20%
L1		A621A5540GP	Filter coil	1	
R2		ERD25FJ564S	Carbon film resistor	2	560KΩ, 1/4W, ±5%
ZNR1		ERZC10DK621F	Varistor	1	
ZNR 2, 3		ERZC10DK112A	Varistor	2	

NOTE 4: When ordering the roller B assy, three rollers will be shipped. When replacing the roller B, three rollers should be replaced at the same time.
Otherwise the glass cooking tray may not turn smoothly.
6: Please order name plate together.

PARTS LIST FOR MICROWAVE OVEN TRIM KITS

Exploded View



Trim kit Model No.	Top and Bottom Strip Ref No: 1.2	Pcs/ Set	Side Strip Ref No: 3.4	Pcs/ Set	Microwave Oven Model No.
NN-TKH03UPG	A1603A430BP	2	A1601A430BP	2	NN-H503B
NN-TKH53UPG	A1603A430HBP	2	A1601A430HBP	2	NN-H553B

NOTE: The top and bottom strips have the same part number and the left and right side strips also have the same part number. These parts will be supplied on one piece per one part number.

DIGITAL PROGRAMMER CIRCUIT

PARTS LIST

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
BZ		AEFB22EP2002	Buzzer	1	2.0KHz
C10		ECEA1VU102E	Electrolytic capacitor AL	1	1000μF/35V/20%
C11		ECEA1HU101B	Electrolytic capacitor AL	1	100μF/50V/20%
C12, 14,22, 26		AECF50F104Z	Ceramic capacitor	4	01μF/50V
C13		ECEA1CKA100B	Electrolytic capacitor AL	1	10μF/16V/20%
JPR6, C15, 16,18, 19,20, 21,23, 25,		ECBT1E103ZF5	Ceramic capacitor	9	0.01μF/25V/ −20% +80%
C17		ECEA1HKA2R2B	Electrolytic capacitor AL	1	2.2μF/50V/20%
CN1		AEEMMD05507W	Connector	1	7 pin
CN2		AEEM12FDZBTM	Connector	1	12 pin
CN3		AEEMMD03D06W	Connector	1	6 pin
CX1		AEFFT4R19GWT	Ceramic resonator	1	4.19MHz
D10,12		AEDNERA1502	Diode, Si	2	
D13, 15,16, 18,19, 20		MA196-(TA5)	Diode, Si	6	
D17		MA700A-(TA)	Diode, Si	1	(0.03A)
*Disp		E64566700BP	FIP display	1	
IC1		AEICC9578616	L.S.I.	1	
IC2		SN102977AN	IC	1	
Q1		2SD2006QRTA	Transistor, Si, 1.2W	1	
Q3,5,6		2SD1991AQSTA	Transistors	3	
R10, 11,21, 22,25, 26		ERDS2TJ201T	Carbon film resistor	6	200Ω, 1/4W±5%
R13, 14		ERDS2TJ392T	Carbon film resistor	2	3.9KΩ, 1/4W±5%
R15, 17,19, 32,34, 35,36, 38,39, 41		ERDS2TJ103T	Carbon film resistor	10	10KΩ, 1/4W±5%
R16		ERDS2TJ301T	Carbon film resistor	1	300Ω, 1/4W±5%
R18, 29,43, 45		ERDS2TJ104T	Carbon film resistor	4	100KΩ, 1/4W±5%
R28, 30,31		ERDS2TJ432T	Carbon film resistor		4.3KΩ, 1/4W±5%
R37		ERDS2TJ202T	Carbon film resistor	1	2KΩ, 1/4W±5%
R40,42		ERDS2TJ333T	Carbon film resistor	1	33KΩ, 1/4W±5%
RY2,5	⚠	AEBG5B18P-1	Power relay	2	
R12		ERDS2TJ2R4T	Carbon film resistor	1	2.4Ω, 1/4W±5%
Z1,2		AEXBM4X204JT	Compound resistor	2	200KΩX4
RY1,4		AEG5J1EM12B	Power relay	2	
T1		ETP41KGN81LN	Transformer	1	
*SP1		E82847010AP	Display holder	1	
Q2		UN4123-(TA)	Transistor	1	
ZD2		AEDZ27ES3T1	Zener diode	1	
ZD3		AEDZ3R6ES2T1	Zener diode	1	
ZD1		AEDZ5R6ES3T1	Zener diode	1	
JPR1		ERD25VJ1ROT	Carbon film resistor	1	1.8Ω, 1/4W ±5%

SERVICE FIXTURES AND TOOLS

EXTENSION CABLES

NOTE: To be used when repairing the DPC board assembly directly on the oven for easy access of the board.

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
		AT40P006	4 pin Extension cable	1	
		AT40E006	1 pin × 6 Extension cable	1	
		AT40P007	7 pin Extension cable	1	

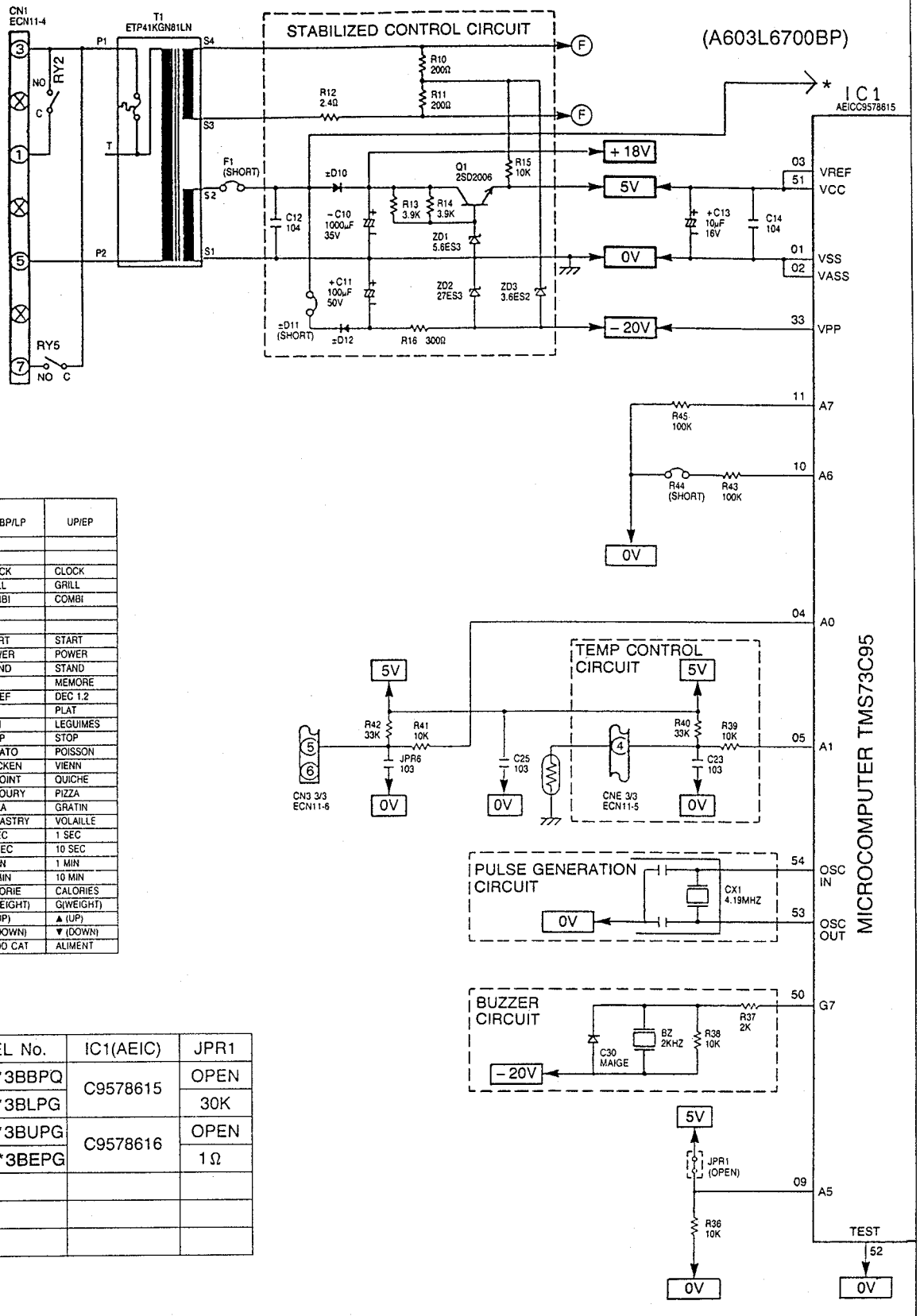
DPC COMMON CHECKER AND ITS CABLE

Note: To be used only when DPC common checker is available.

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
		ANE600ZK70GP	DPC, common checker	1	
		AT30A6700BP	DPC, checker cable	1	Note

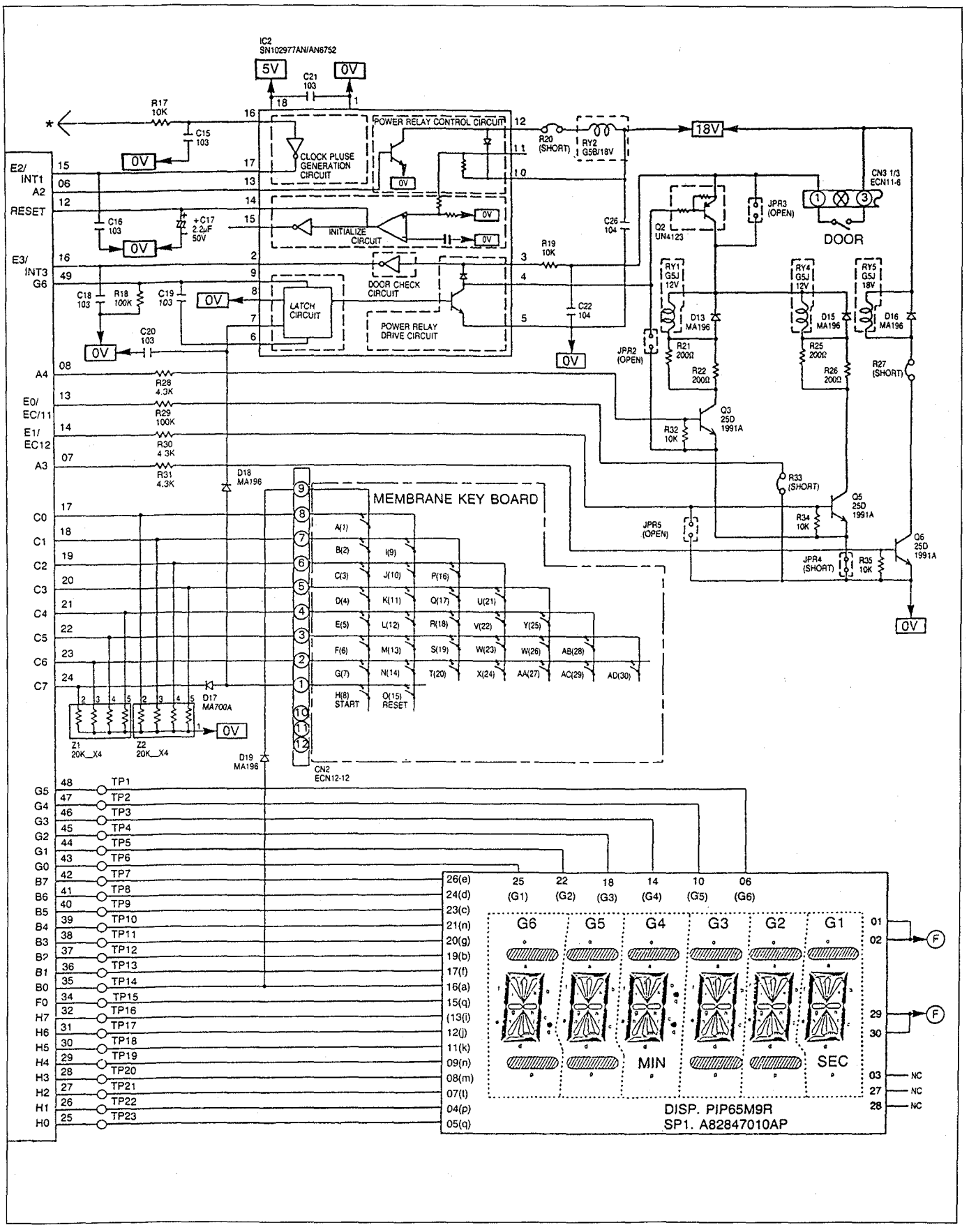
DIGITAL PROGRAMMER CIRCUIT

SCHEMATIC DIAGRAM



	BP/LP	UP/EP
A(1)		
B(2)		
C(3)	CLOCK	CLOCK
D(4)	GRILL	GRILL
E(5)	COMBI	COMBI
F(6)		
G(7)		
H(8)	START	START
I(9)	POWER	POWER
J(10)	STAND	STAND
K(11)		MEMORE
L(12)	A. DEF	DEC 1.2
M(13)	VEG	PLAT
N(14)	FISH	LEGUIMES
O(15)	STOP	STOP
P(16)	POTATO	POISSON
Q(17)	CHICKEN	VIENN
R(18)	M. JOINT	QUICHE
S(19)	SAVOURY	PIZZA
T(20)	PIZZA	GRATIN
U(21)	R. PASTRY	VOLAILLE
V(22)	1 SEC	1 SEC
W(23)	10 SEC	10 SEC
X(24)	1 MIN	1 MIN
Y(25)	10 MIN	10 MIN
Z(26)	CALORIE	CALORIES
AA(27)	G(WEIGHT)	G(WEIGHT)
AB(28)	▲ (UP)	▲ (UP)
AC(29)	▼ (DOWN)	▼ (DOWN)
AD(30)	FOOD CAT	ALIMENT

MODEL No.	IC1(AEIC)	JPR1
NN-H5*3BBPQ	C9578615	OPEN
NN-H5*3BLPG		30K
NN-H5*3BUPG	C9578616	OPEN
NN-H5*3BEPG		1Ω


IC2
SN102977AN/AN6752
5V
0V
C21
103
R17
10K
C15
103
POWER RELAY CONTROL CIRCUIT
CLOCK PLUSE GENERATION CIRCUIT
INITIALIZE CIRCUIT
DOOR CHECK CIRCUIT
LATCH CIRCUIT
POWER RELAY DRIVE CIRCUIT
R20 (SHORT)
RY2 G5B/18V
18V
CN3 1/3 ECN11-6
JPR3 (OPEN)
DOOR
Q2 UN4123
C26 104
R19 10K
C22 104
C16 103
+C17 2.2μF 50V
C18 103
R18 100K
C19 103
C20 103
RY1 G5J 12V
RY4 G5J 12V
RY5 G5J 18V
D13 MA196
D15 MA196
D16 MA196
JPR2 (OPEN)
R21 200Ω
R22 200Ω
R25 200Ω
R26 200Ω
R27 (SHORT)
R28 4.3K
R29 100K
R30 4.3K
R31 4.3K
Q3 25D 1991A
R32 10K
R33 (SHORT)
Q5 25D 1991A
R34 10K
JPR5 (OPEN)
JPR4 (SHORT)
R35 10K
Q6 25D 1991A
D18 MA196
D19 MA196
D17 MA700A
Z1 20K_X4
Z2 20K_X4
MEMBRANE KEY BOARD
CN2 ECN12-12
A(1)
B(2)
C(3)
D(4)
E(5)
F(6)
G(7)
H(8) START
I(9)
J(10)
K(11)
L(12)
M(13)
N(14)
O(15) RESET
P(16)
Q(17)
R(18)
S(19)
T(20)
U(21)
V(22)
W(23)
X(24)
Y(25)
W(26)
AA(27)
AB(28)
AC(29)
AD(30)
E2/ INT1 A2 RESET
E3/ INT3 G6
A4
E0/ EC/11
E1/ EC12
A3
C0
C1
C2
C3
C4
C5
C6
C7
G5
G4
G3
G2
G1
G0
B7
B6
B5
B4
B3
B2
B1
B0
F0
H7
H6
H5
H4
H3
H2
H1
H0
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
26(e)
24(d)
23(c)
21(n)
20(g)
19(b)
17(f)
16(a)
15(q)
(13(i)
12(j)
11(k)
09(n)
08(m)
07(l)
04(p)
05(q)
25 (G1)
22 (G2)
18 (G3)
14 (G4)
10 (G5)
06 (G6)
G6
G5
G4
G3
G2
G1
MIN
SEC
01
02
29
30
03
27
28
NC
NC
NC
DISP. PIP65M9R
SP1. A82847010AP

ORDER NO. CAD9406789S2 5836

Service Manual

Supplement

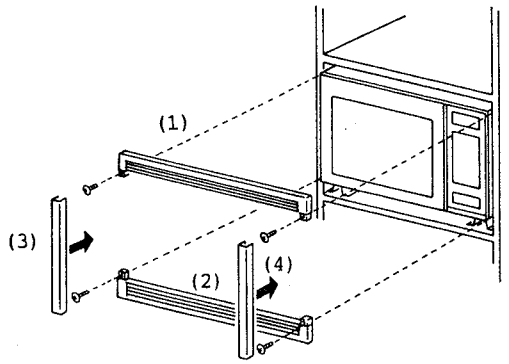
Microwave Oven Trim Kits

NN-TKC03, NN-TKC53
NN-TKH03, NN-TKH53

Subject: CORRECTION OF PARTS LIST

Reason for Change
1. Improve performance
2. Change of material or dimension
3. To meet approved specification
4. Standardization
5. Addition
6. Deletion
7. Correction
8. Other

Exploded View



Interchangeability Code

	Parts	Set Production	
A	Original →	Early	Original or new parts may be used in early or late production sets. Use original parts until exhausted, then stock new parts.
	New →	Late	
B	Original →	Early	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
	New →	Late	
C	Original →	Early	New parts only may be used in early or late production sets. Stock new parts.
	New →	Late	

Part Number

Trim Kit Model No.	Microwave Oven Model No.	Part Name & Descriptions	Original Part No.	New Part No.	Interchange-ability Code	Reason of Changes
NN-TKC03 BPQ NN-TKH03 BPQ	NN-C703B, NN-C803B, NN-H503B, NN-6＊03,	Top and Bottom Strip, Ref. No. 1, 2	A1603A430BP	A1603A440BP	B	2
		Side Strip, Ref. No. 3, 4	A1601A430BP	A1601A440BP	B	2
NN-TKC53 BPQ NN-TKH53 BPQ	NN-C753B, NN-C853B, NN-H553B, NN-6＊53,	Top and Bottom Strip, Ref. No. 1, 2	A1603A430HBP	A1603A440HBP	B	2
		Side Strip, Ref. No. 3, 4	A1601A430HBP	A1601A440HBP	B	2

NOTE 1: This change is applied to the units which are produced after July 1994.
NOTE 2: The top and bottom strips have the same part number and the left and right side strips also have the same part number. These parts will be supplied on one piece per one part number.

Panasonic

S-A44 BPQ, etc
D1101~2
Printed in Japan
Ⓗ, Ⓚu & Ⓔ